

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-87. (Canceled)

88. (New) An isolated antibody or binding fragment thereof which binds to a TGF-beta binding protein, wherein said binding protein comprises a polypeptide encoded by a first polynucleotide that specifically hybridizes under conditions of high stringency to a second polynucleotide,

wherein the second polynucleotide comprises a nucleotide sequence that is complementary to a sequence selected from the group consisting of SEQ ID NOS:1, 5, 9, 11, 13, and 15, or a complementary sequence thereto which encodes a TGF-beta binding protein, and

wherein high stringency conditions comprise prewashing in 60 mM Tris pH 8.0, 2 mM EDTA, 5x Denhardt's, 6x SSC, 0.1% (w/v) N-laurylsarcosine, 0.5% (w/v) NP-40® (nonidet P-40) overnight at 45°C, followed by two washes with 0.2x SSC containing 0.1% SDS at 45-50°C.

89. (New) An isolated antibody or antigen binding fragment thereof which specifically binds to a TGF-beta binding protein, wherein said binding protein comprises a polypeptide encoded by a polynucleotide having at least 90% identity to a full length sequence selected from SEQ ID NOS:1, 5, 9, 11, 13, and 15, or a complementary sequence thereto.

90. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the polypeptide specifically binds to at least one human bone morphogenic protein selected from the group consisting of bone morphogenic protein 5 and bone morphogenic protein 6.

91. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the isolated antibody or binding fragment thereof is a polyclonal antibody.

92. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the isolated antibody or binding fragment thereof is a monoclonal antibody.

93. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the isolated antibody or binding fragment thereof is a humanized antibody.

94. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the antibody or antigen binding fragment has an affinity of at least 10^{-7} M.

95. (New) The antibody or antigen binding fragment thereof of either claim 88 or claim 89 wherein the antibody or antigen binding fragment has an affinity of at least 10^{-8} M.

96. (New) A hybridoma that produces an antibody according to either claim 88 or claim 89.

97. (New) A method of producing monoclonal antibodies, comprising immunizing an animal with a TGF-beta binding protein or portion thereof, wherein said binding protein is selected from the group consisting of (i) a polypeptide encoded by a polynucleotide that comprises a nucleotide sequence selected from SEQ ID NOs:1, 5, 7, 9, 11, 13, and 15, or a complementary sequence thereto which encodes a TGF-beta binding protein, and (ii) a

polypeptide that comprises an amino acid sequence selected from SEQ ID NOs: 2, 6, 8, 10, 12, 14, and 16.

98. (New) A method for production of an antibody according to either claim 88 or claim 89 comprising culturing hybridoma cells under conditions that permit the production of said antibody.

99. (New) A method for production of an antibody or binding fragment thereof of either claim 88 or claim 89, comprising:

(a) providing a recombinant host cell capable of producing said antibody or binding fragment thereof; and

(b) culturing said cell under conditions that permit the production of said antibody or binding fragment.

100. (New) A method for immunizing an animal to produce a cell capable of expressing an antibody that binds to a TGF beta binding protein, comprising injecting into an animal a TGF-beta binding protein or portion thereof, wherein said binding protein is selected from the group consisting of:

(i) a polypeptide encoded by a polynucleotide that comprises a nucleotide sequence selected from SEQ ID NOs:1, 5, 7, 9, 11, 13, and 15, or a complementary sequence thereto, and

(ii) a polypeptide that comprises an amino acid sequence selected from SEQ ID NOs: 2, 6, 8, 10, 12, 14, and 16.